We claim:

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1. A dental material comprising at least one cationically polymerizable monomer as a binder, a polymerization initiator, and based on the dental material, 1-95 wt% of at least one inorganic filler, said binder containing at least one monomer of formula (I):

$$X - \left\{Y - \left(O^{R}\right)_{n}\right\}_{m} \tag{1}$$

wherein R represents hydrogen, a methyl or ethyl group; X and Y independently represent an unsubstituted or substituted aliphatic, cycloaliphatic, or aromatic residue with 1-100 carbon atoms, wherein one or more CH<sub>2</sub> groups can be replaced by O, C=O, -CO<sub>2</sub>, -SiR<sup>1</sup><sub>2</sub>-, and/or -SiR<sup>1</sup><sub>2</sub>O-, wherein R<sup>1</sup> independently represents an alkyl or alkoxy or aryl residue with 1-10 C atoms; n represents a whole number of 1-3; and m represents a whole number of 2-5.

2. The dental material according to Claim 1, wherein the residue X is one or more of the following groups:

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wherein  $R^1$  independently represents an alkyl or alkoxy residue with 1-6 C atoms; j and k independently represent whole numbers in the range of 1-10.

3. The dental material according to Claim 1, wherein the residue Y has one or more groups:

$$CH_2$$
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 

wherein R represents hydrogen or methyl; and n represents a whole number in the range of 1-10.

4. The dental material according to Claim 2, wherein the residue Y has one or more groups:

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$$CH_2$$
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 

wherein R represents hydrogen or methyl; and n represents a whole number in the range of 1-10.

- 5. The dental material according to claim 1, wherein the monomers of formula (I) have a molecular weight in the range of 300-3000.
- 6. The dental material according to claim 1, wherein the binder has a viscosity in the range of 1 mPa·s to 1000 mPa·s.
- 7. The dental material according to claim 1, wherein the binder also has monofunctional vinyl ethers.
- 8. The dental material according to claim 1, wherein the polymerization initiator contains an iodonium salt and a sensitizer.
- 9. The dental material according to claim 1, wherein the polymerization initiator can be initiated by irradiation with visible light.

6 K 5

- 10. The dental material according to claim 1, wherein the filler is a member selected quartz, ground glass, silica gel, from the group consisting of silica, a zeolite, an ormocer, and mixtures of these substances.
- 5 11. The dental material according to Claim 10, wherein the filler is treated with an adhesive.
  - 12. The dental material according to claim 1, wherein the filler content is in the range of 50-90 wt% based on the total weight.
  - 13. The dental material according to claim 1, wherein the filler content is in the range of 65-90 wt% based on the total weight.
  - 14. The dental material according to claim 1 wherein the flexural strength thereof is  $\geq 30$  N/mm<sup>2</sup> in accordance with DIN 53 452, and/or the modulus of elasticity thereof is  $\geq 500$  N/mm<sup>2</sup> in accordance with DIN 53 457.
    - 15. The dental material according claim 1, consisting of the following:

4.98-95 wt%	Binder;
0.02-10 wt%	Polymerization initiator;
1-95 wt%	Filler, and
0-20 wt%	Usual additives, based on the total weight of the dental materi

16. A method for the production of a dental material according to Claim 1, comprising mixing components together.

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